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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,355	02/21/2002	Krishnasamy Anandakumar	TI-29773	9762

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EXAMINER	
PIERRE, MYRIAM	

ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/081,355	ANANDAKUMAR ET AL.	
	Examiner	Art Unit	
	Myriam Pierre	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-8 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 60270264.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Gersho et al. (6,311,154).

As to claim 1, Gersho et al. teach

deferring truncation (coding) of an active frame (Fig. 8 (encoder) elements 36 and 34, the silence is detected first before the classification of the signal (element 34), then it is encoded (element 42), and col. 5 lines 49-51; thus the truncation or coding of the active frame is deferred);

and truncating a silence frame (col. 14 lines 40-42).

As to claim 2, Gersho et al. teach

said packetized speech includes CELP-encoded frames (Fig. 8 element 42 and col. 2 lines 52-56); and

said truncating a silence frame includes inherently truncating an excitation for said silence frame (Fig. 8 elements 36 and 42)

As to claim 3, Gersho et al. teach

expanding (decoding) an active frame according to a voicing classification for said active frame (Fig. 14 (decoder inherently expands signal) element 10g; col. 5 lines 60-63).

As to claim 4, Gersho et al. teach

classifying a frame as voice (Fig. 14 element 10e) or not (Fig. 14 element 10g);

expanding a voiced frame by a multiple of the pitch of said voice frame (Fig. 14 elements 10g and 10h and col. 28 lines 46-53).

As to claim 5, Gersho et al. teach

said frames are CELP-encoded frames (col. 2 lines 52-56)

said expanding a voice frame includes expanding an excitation for said voice frame (based on pitch info, adaptive codebook vector retrieved from codebook (Fig. 14) 10g, generates excitation vector which is multiplied by a gain) by a multiple of the pitch of said voiced frame (bit streams containing pitch information) (Fig. 14 element 10 h; col. 28 lines 43-55; col. 2 lines 52-56; bit streams which contain pitch information is used for the adaptive codebook vector to retrieve excitation vector which is multiplied by the gain, the multiple of pitch is inherently from the bit streams).

As to claim 6, Gersho et al. teach

said classifying a frame of step (a) classifies an active frame as one of (i) voiced (Fig. 9 element 42c) (ii) unvoiced (element 42a) or transition (element 42b); and

expanding an unvoiced frame includes expanding an excitation fro said unvoiced frame with a random fixed-codebook vector (col. 11 lines 49-61).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gersho et al. (6,311,154) in view of Maeda et al. (5,839,110).

As to claim 7, Gersho et al. teach

an input for receiving CELP-encoding frames (Fig. 14)

a decoder coupled to said input (Fig. 14 element 10a)

Gersho et al. does not explicitly teach the play-out scheduler coupled to said input.

However, Maeda et al. teach a play-out scheduler coupled to input (Fig. 1 element 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time of the invention to implement Gersho et al.'s speech coding with Maeda et al.'s play-back coupled to said input because one would be able to specify the presence or absence of speech used for recording or playback. (Maeda et al., col. 5 lines 13-21 and col. 2 lines 23-29).

Gersho et al. teach said decoding operable to provide expansion, wherein said expansion is a multiple pitch for said voiced frame (col. 28 lines 42-55).

Gersho et al. does not explicitly teach decoder providing expansion of voice in response to said play-out scheduler.

However, Maeda et al. teach decoder providing expansion of voice in response to said play-out scheduler (Fig. 1 element 8 and Fig. 8 elements 83, 6b and 6a; set flag for play-back, col. 10 lines 50-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Gersho et al.'s speech coding with Maeda et al.'s play-back scheduler because the user can preset responses to playback request for user friendliness, thus user is able to have control of recording/playback. (Maeda et al., col. 5 lines 13-21 and col. 2 lines 23-29 and col. 10 lines 10-15, lines 34-41).

As to claim 8, Gersho et al. teach

decoding operable to provide truncation of a frame (col. 28 lines 42-44 and 56-59).

But Gersho et al. does not explicitly teach the response to said play-out scheduler only when said frame s a silence frame.

However, Maeda et al. teach the response to said play-out scheduler only when said frame s a silence frame (indicate the silent period, compressing/encoding, in the silent state col. 2 lines 23-29)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement Gersho et al.'s speech coding with Maeda et al.'s play-out scheduler because one would record avoid recording silence, thus signals are provided that indicate the silent period during compressing/encoding means in the silent state, and thus inhibit extraneous silence during playback. (Maeda et al., col. 2 lines 23-29).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure Choi (2002/0062209); Howitt (5,742,930); Gao et al. (6,604,070); Unno (6,826,527); Kirchherr et al. (2003/0009325); Hardwick (2003/0135374) and Okano et al. (6,031,915) .

Choi (2002/0062209) teaches voice and unvoiced estimation system using spectrum differences in vector quantization.

Howitt (5,742,930) voice compression system, recognition of redundant voice signal, such as silence, and replacing that portion with special code in compressed signal.

Gao et al. (6,604,070) teach speech compression of encoding speech signal with various rated codec which are selectively activated based on a rate selection.

Unno (6,826,527) teaches LP encoding with adaptive and fixed codebooks.

Kirchherr et al. (2003/0009325) teach coding schemes, classifying input signals and coding.

Hardwick (2003/0135374) teaches speech synthesizer based on speech model parameters.

Okana et al. teach voice start recording apparatus and controlling of start and stop of recording.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Myriam Pierre whose telephone number is 571-272-7611. The examiner can normally be reached on Monday - Friday from 5:30 a.m. - 2:00p.m.

2. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

3. Information as to the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). 09/02/2005 MP

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER